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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants: Wang et al. Examiner: F. Ehichioya
Serial No: 09/925,596 Group Art Unit: 2172
Filed: August 9, 2001 Docket: YOR9-2001-0451US1 (8728-528)
For: METHOD AND APPARATUS FOR AUTOMATICALLY
UPDATING STOCK AND MUTUAL FUND GRAMMARS
IN SPEECH RECOGNITION SYSTEMS

APPEAL BRIEF

This is an Appeal from the Final Office Action mailed May 20, 2004 (Paper No. 6), finally rejecting claims 1-33. Applicants appeal pursuant to the Notice of Appeal received by the USPTO on September 27, 2004 and submit this appeal brief.

Appeal from Group 2172

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1. Real Party in Interest

The real party in interest is INTERNATIONAL BUSINESS MACHINES CORPORATION, the assignee of the entire right, title and interest in and to the subject application by virtue of an assignment of record.

2. Related Appeals and Interferences

None.

3. Status of Claims

Claims 1-33 are pending, stand rejected and are under appeal.

A copy of the claims 1-33 as pending is presented in the Appendix.

4. Status of Amendments

Claims 1-33 were not amended after Final Rejection.

5. Summary of the Invention

Users often utilize financial applications to retrieve information about particular stocks and mutual funds. Instead of typing in a query, for example, the user may more simply request the stock and mutual fund information by speaking into a speech recognition system. (Specification [hereinafter "Spec"], p. 1, lines 16-18). Because stock and mutual fund information change and update regularly, it follows that financial applications using speech recognition systems must keep up-to-date grammars. However, manual generation of stock and mutual fund grammars can be a complex task, requiring

several months of difficult work. (Spec., p. 1, lines 21-23). Thus, methods and apparatus are provided for automatically updating stock and mutual fund grammars in a speech recognition system. (Claims 1, 13 and 22).

The methods and apparatus automatically update, on a pre-specified basis a database having a plurality of entries. (Claims 1, 13 and 22). Each entry respectively corresponds to a publicly traded stock or a publicly traded fund, and includes at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name. (Claims 1, 13 and 22). Updating the database may include adding new entries for newly listed stocks and newly listed funds, and removing any of the plurality of entries corresponding to newly unlisted stocks and newly unlisted funds. (Claim 13). Further, the methods and apparatus automatically update a grammar file for names in the database. (Claims 1, 13 and 22). The grammar file includes names and weights for the names. (Claims 1, 13 and 22). The grammar file may be updated with respect to newly listed stock names and the newly listed fund names. (Claim 13).

6. Issue

- A. Whether the rejection of claims 1-33 as obvious in view of Buist (U.S. Patent No. 6,408,282) (hereinafter "Buist") and Barr *et al.* (U.S. Patent No. 5,761,442) (hereinafter "Barr") is erroneous.

7. **Grouping of Claims**

Group I: Claims 2-12 stand or fall with Claim 1, although such claims are believed to be patentable in their own right. Claims 13-32 do not stand or fall with Claim 1.

Group II: Claims 14-21 stand or fall with claim 13, although such claims are believed to be patentable in their own right.

Group III: Claims 23-33 stand and fall with claim 22, although such claims are believed to be patentable in their own right.

8. **Argument**

A. **Introduction**

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993). The burden of presenting a *prima facie* case of obviousness is only satisfied by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). A *prima facie* case of obviousness is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 782 (Fed. Cir. 1993). The suggestion to combine the references should come from the prior art, and the Examiner cannot use hindsight gleaned from the invention itself to pick and choose among related disclosures in the prior art to arrive at the claimed invention. *In re Fine*, 837 F.2d at 1075. If the Examiner fails to establish a *prima facie* case, the

rejection is improper and must be overturned. *In re Rijckaert*, 9 F.3d at 1532 (citing *In re Fine*, 837 F.2d at 1074).

It is respectfully submitted that at the very least, the references Buist and Barr, taken individually or in any combination, are legally insufficient to sustain a *prima facie* case of obviousness against independent claims 1, 13 and 22. More specifically, the references do not teach or suggest all limitations of claims 1, 13 and 22. The combined teachings of Buist, and Barr fail to teach or suggest “a weight for the at least one name, and baseforms of the at least one name,” “automatically updating” and “automatically updating a grammar file,” as claimed in claim 1. Additionally, even assuming, *arguendo*, that the references disclose each and every limitation of claims 1, 13 and 22, the Examiner has failed to show any suggestion, motivation, or teaching in Buist or Barr to select and combine the references to teach or suggest the limitations of claims 1, 13 and 22.

For the reasons set forth below, Appellants respectfully request that the claim rejections under 35 U.S.C. § 103(a) be reversed.

It is respectfully submitted that because the Examiner addresses portions of claims 1, 13 and 22 together, Appellants will address those portions together as well in the interest of clarity and organization.

B. The combined teachings of *Buist* and *Barr* fail to teach or suggest “a weight for the at least one name, and baseforms of the at least one name,” as claimed in claims 1, 13, and 22.

Claims 1, 13 and 22 claim, *inter alia*, “a database having a plurality of entries, each entry...respectively comprising at least one name of the publicly traded stock or publicly traded fund, *a weight for the at least one name, and baseforms of the at least one name.*” (Claims 1 and 13; emphasis added). Without specifically addressing each limitation of the claims, the Examiner cites Fig. 60 and col. 6, lines 25-61 of Buist as teaching or suggesting “a weight for the at least one name, and baseforms of the at least one name.” (Paper no. 6, p. 6). However, contradicting the Examiner’s assertion that Buist *does* teach “a weight for the at least one name,” the Examiner also asserts that Buist *does not* explicitly teach “a weight for the at least one name,” and instead cites col. 4, lines 51-57 of Barr. (Paper no. 6, p. 6). This contradiction effectively leaves one to *guess* as to what the rejections are, which is clearly improper and renders the obviousness rejections erroneous.

It is unclear to Appellants which part of Figure 60 or col. 6, lines 25-61 teaches or suggests “a weight for the at least one name” and “baseforms of the at least one name,” as argued by the Examiner. Figure 60 shows an applet version of the *most viewed stocks* display shown in Fig. 57A. (Buist, col. 36, lines 50-51). Col. 6, lines 25-61 describes a system that maintains real-time data (*i.e.*, an “order book”) reflecting *buy and sell orders* for securities. It is difficult to comprehend how a chart of the most viewed stocks or data reflecting buy and sell orders bears any relation to “a weight for the at least one name” and “baseforms of the at least one name,” in a *speech recognition* system, as claimed in claims 1, 13 and 22.

The citations provided by the Examiner clearly do not teach or suggest “a weight for the at least one name” and “baseforms of the at least one name,” as claimed in claims 1,

13 and 22. Further, the Examiner fails to provide any reasoning whatsoever in support of his/her rejections. Thus, it is respectfully asserted that the Examiner has failed to establish a *prima facie* obviousness rejection.

Because Buist, and Barr, alone or in combination, neither teach nor suggest each and every element of claims 1, 13 and 22, it is respectfully asserted that no *prima facie* case of obviousness has been made out. Accordingly, the rejection of claims 1-33 should be reversed.

C. The Examiner has failed to show any suggestion, motivation or teaching in Buist or Barr to select and combine the references to teach or suggest the limitations of claims 1, 13 and 22.

As motivation for combining Buist and Barr, the Examiner provides the following conclusory statement: “The motivation is that these weights form the basis of both long and short portfolios.” (Paper no. 6, p. 6). This statement does not provide a motivation for combining Buist and Barr; instead, the statement is simply the purpose of the weights, as described in Barr. Buist teaches a system for supporting trading of securities over the Internet after normal market hours and without involving an exchange. (Buist, col. 2, line 61 – col. 3, line 29). The weights described in Barr are based on estimated performance potential of a stock, and are used for choosing stocks in an investment portfolio. (Barr, col. 4, lines 51-57).

There must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376 (Fed. Cir. 2001). It is entirely unclear to Appellants how one skilled in the art would combine the system taught by Buist with the weights taught by Barr. Buist

provides no teaching or suggestion in *assisting* the user in choosing securities; it provides only an conduit by which to trade securities. Barr, on the other hand, appropriately utilizes weights for an artificial intelligence (*i.e.*, neural network) system to develop an investment portfolio. (Barr, col. 3, lines 31-45). In contradiction with Buist, Barr is simply unconcerned with the actual trading of securities. Thus, it can only be inferred that any motivation or suggestion to include the weights of Barr in the system of Buist results from the Examiner's improper hindsight reasoning.

Another motivation provided by the Examiner for combining Barr and Buist in the manner suggested by the Examiner is that the combination would make "the process easy and [optimize] the investment portfolio." (Paper no. 6, p. 4). This movation is entirely conclusory and speculative on the Examiner's part. (Paper no. 6, p. 4). It can only be inferred that such a statement is also based on improper hindsight reasoning.

In the present invention, the Examiner attempts to piece together a broad statement in the background of Barr (col. 2, lines 41-67: "In the past several years, *neural networks*...have become popular in solving a variety of problems ranging from protein secondary structure prediction to speech recognition") with the invention disclosed in Buist. (Paper No. 6, p. 5).

It is respectfully submitted that the Examiner has not viewed the claimed invention as a whole and has improperly focused upon the supposed obviousness of the differences between the claimed invention and the prior art cited against the claims. In particular, the Examiner has attempted to combine a broad statement in the background of Barr into the computer-aided securities trading system disclosed in Buist. Barr simply states that neural

networks can be used in solving problems in speech recognition. Buist on its own is entirely unrelated to speech recognition.

Further, Applicants respectfully assert that the Examiner is incorrect in saying that “Barr discloses speech recognition that is used in stock portfolio selection...in column 2, lines 41-67.” (Paper no. 6, p. 4). The recited portions of Barr teach the use of *neural networks* (not speech recognition) for selection of time series data in the problem of stock portfolio selection. The Examiner seems to be confusing “neural networks,” which can be used to *solve problems* in speech recognition, with speech recognition itself. Even from a cursory review of Barr, it is clear that Barr is unconcerned with speech recognition. Further, col. 9, lines 42-43 of Barr states that “[a]t step 322 the user selects a stock of interest by typing the stock symbol into an appropriate display.” Clearly, Barr is not only unconcerned with speech recognition systems, but, in fact, also *teaches away* from the use of speech recognition systems.

The Examiner has offered no source of suggestion, motivation or teaching in Buist or Barr, other than hindsight knowledge, to select and combine the disparate teachings Buist and Barr. Further, Barr teaches away from the speech recognition system of the claimed invention. Accordingly, because there is no suggestion, motivation or teaching in the prior art to select or combine the references to teach or suggest claims 1, 13 and 22, it is respectfully asserted that the rejections to claims 1-33 should be reversed.

D. The combined teachings of *Buist* and *Barr* fail to teach or suggest “automatically updating,” as claimed in claims 1, 13, and 22.

In rejecting the step of “automatically updating,” the Examiner “*categorically state[s]* that an automatic means to replace a manual activity is not sufficient to distinguish

over the prior art as shown in the case of *In re Venner*.” In *In re Venner*, 262 F.2d 91, 94, 120 USPQ 192, 194 (CCPA 1958), the appellants argued that “the basis for allowance of the appealed claims [to an apparatus for molding trunk pistons of aluminum and magnesium alloys] resides in the combination of the old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed.” The court stated that “it is well settled that it is not ‘invention’ to broadly provide a mechanical or automatic means to replace manual activity which has *accomplished the same result*.” *Venner*, 262 F.2d at 95, 120 USPQ at 194. In *Venner*, however, all limitations in the claims, including the automatic means, *were disclosed in the applied references*. See *Venner*, 262 F.2d at 96, 120 USPQ at 195.

In the present case, unlike in *Venner*, the Examiner has not provided a reference which discloses “*automatically updating...a database having a plurality of entries...respectively comprising at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name*.” The Examiner has merely relied on a *per se* rule that providing a mechanical or automatic means to replace manual activity which has accomplished the same result is unpatentable. As stated by the Federal Circuit in *In re Ochiai*, 71 F.3d 1565, 1572, 27 USPQ2d 1127, 1133 (Fed. Cir. 1995), “reliance on *per se* rules of obviousness is *legally incorrect and must cease*.” Thus, *In re Ochiai* expressly repudiates and discourages the “categorical” assertion made by the Examiner. Moreover, the Examiner has not established that providing real-time updates of buy and sell orders for securities, as taught by the Buist, *accomplishes the same result* as “automatically updating...a database having a plurality of

entries...respectively comprising at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name,” as claimed in claims 1, 13 and 22. Thus, the Examiner has not legally established proper reliance of *In re Venner*.

Because the Examiner has not legally established proper reliance of *In re Venner*, the Examiner has failed to prima facie establish that the combined teachings of Buist and Barr teach or suggest “automatically updating,” as claimed in claims 1, 13, and 22. Accordingly, it is respectfully asserted that the rejections to claims 1-33 should be reversed.

E. The combined teachings of *Buist* and *Barr* fail to teach or suggest “automatically updating a grammar file,” as claimed in claims 1, 13, and 22.

Claims 1, 13 and 22 further claim, *inter alia*, “automatically updating a grammar file.” The Examiner argues that “grammar file,” as claimed in claims 1, 13 and 22, is taught or suggested by “order book,” as disclosed in Buist. (Paper no. 6. p. 3). As the Examiner correctly states, “claims are interpreted in light of the specification.” (Paper no. 6, p. 3). Under the Examiner’s own premise, the term “grammar file” should be interpreted in light of the Appellants’ specification, which relates to a *speech recognition system*. This is further supported by the preamble, which states: “A method for automatically updating stock and mutual fund *grammars* in a *speech recognition system*.” (Claims 1, 13 and 22).

It is respectfully submitted that a “grammar file,” as interpreted by one skilled in the art, is not taught or suggested by Buist, which is *entirely* unrelated to speech recognition systems. Col. 6, lines 36-42 of Buist state that an “order book” contains “real-

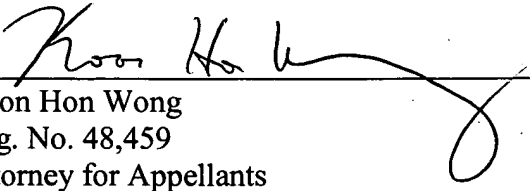
time data reflecting buy and sell orders for the supported securities” for a user. An order book is clearly illustrated in Figure 6 of Buist, which does not show a “grammar file” for a speech recognition system.

Because Buist, and Barr, alone or in combination, neither teach nor suggest each and every element of claims 1, 13 and 22, it is respectfully asserted that no *prima facie* case of obviousness has been made out. Accordingly, the rejection of claims 1-33 should be reversed.

F. CONCLUSION

The claimed invention is not disclosed or suggested by the teachings of the applied prior art references, either alone or in combination. Moreover, the Examiner has failed to establish a *prima facie* case of obviousness of the presently claimed method under 35 U.S.C. § 103(a) over the combination of Buist and Barr for at least the reasons noted above. Accordingly, it is respectfully requested that the Board reverse the rejection of claims 1-33 under 35 U.S.C. § 103(a).

Respectfully submitted,

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APPENDIX

1. A method for automatically updating stock and mutual fund grammars in a speech recognition system, comprising the steps of:

automatically updating, on a pre-specified basis, a database having a plurality of entries, each entry respectively corresponding to a publicly traded stock or a publicly traded fund, and respectively comprising at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name; and

automatically updating a grammar file for names in the database, the grammar file including the names and weights for the names.

2. The method according to claim 1, wherein said updating step comprises the steps of:

automatically identifying, from web sites, stocks and funds that are no longer listed on a market; and

automatically removing from the database any of the plurality of entries corresponding to the identified stocks and funds.

3. The method according to claim 1, wherein said updating step comprises the steps of:

automatically identifying, from web sites, newly listed stocks and newly listed funds, if any; and

automatically creating an entry in the database for each of the newly listed stocks and the newly listed funds.

4. The method according to claim 3, wherein said creating step comprises the steps of:

determining the weights for the names of the newly listed stocks and the newly listed funds; and

generating the baseforms of the names of the newly listed stocks and the newly listed funds.

5. The method according to claim 1, wherein said updating step comprises the steps of:

identifying the transaction volumes of any stocks and funds for which an entry exists in the database;

quantizing the transaction volumes into a plurality of bands; and

assigning a corresponding weight to each of the plurality of bands.

6. The method according to claim 5, wherein a given corresponding weight assigned to a given band corresponds to each of the names of any of the stocks and funds in the given band.

7. The method according to claim 1, further comprising the steps of:
automatically combining short words in the database to form combined words, a short word being a stock name or a fund name that has less than a predefined number of phonemes;

automatically generating the baseforms for the combined words; and
updating the grammar file to include the combined words.

8. The method according to claim 1, wherein said step of updating the database comprises the step of automatically adapting the weights for the names in the database, based upon a transaction volume over a predetermined period of time.

9. The method according to claim 1, wherein said step of updating the database is performed on a pre-specified basis.

10. The method according to claim 9, wherein the pre-specified basis is daily.

11. The method according to claim 1, wherein each of the plurality of entries further comprises one of corresponding resolved stock names or corresponding resolved fund names, if any.

12. The method according to claim 1, wherein each of the plurality of entries further comprises corresponding stock nicknames or corresponding fund nicknames, if any.

13. A method for automatically updating stock and mutual fund grammars in a speech recognition system, comprising the steps of:

constructing a database having a plurality of entries, each entry respectively corresponding to a publicly traded stock or a publicly traded fund, and respectively comprising at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name;

generating a grammar file for names in the database, the grammar file including the names and weights for the names;

automatically updating the database on a pre-specified basis, including adding new entries for newly listed stocks and newly listed funds and removing any of the plurality of entries corresponding to newly unlisted stocks and newly unlisted funds; and

automatically updating the grammar file with respect to the newly listed stock names and the newly listed fund names.

14. The method according to claim 13, wherein said step of removing any of the plurality of entries corresponding to the newly unlisted stocks and the newly unlisted funds comprises the step of automatically identifying, from web sites, stocks and funds that are no longer listed on a market.

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15. The method according to claim 13, wherein said step of adding the new entries for the newly listed stocks and the newly listed funds comprises the step of automatically identifying, from web sites, the newly listed stocks and newly listed funds, if any.

16. The method according to claim 13, wherein said step of updating the database comprises the steps of:

identifying the transaction volumes of any stocks and funds for which an entry exists in the database;

quantizing the transaction volumes into a plurality of bands; and

assigning a corresponding weight to each of the plurality of bands.

17. The method according to claim 13, further comprising the steps of:
automatically combining short words in the database to form combined words, a short word being a stock name or a fund name that has less than a predefined number of phonemes;

automatically generating the baseforms for the combined words; and
updating the grammar file to include the combined words.

18. The method according to claim 13, wherein said step of updating the database comprises the step of automatically adapting the weights for the names in the database, based upon a transaction volume over a predetermined period of time.

19. The method according to claim 13, wherein each of the plurality of entries further comprises one of corresponding resolved stock names or corresponding resolved fund names, if any.

20. The method according to claim 13, wherein each of the plurality of entries further comprises corresponding stock nicknames or corresponding fund nicknames, if any.

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21. The method according to claim 13, wherein said step of updating the database comprises the step of automatically generating baseforms of the newly listed stock names and the newly listed fund names.

22. An apparatus for automatically updating stock and mutual fund grammars in a speech recognition system, comprising:

a database update device for automatically updating, on a pre-specified basis, a database having a plurality of entries, each entry respectively corresponding to a publicly traded stock or a publicly traded fund, and respectively comprising at least one name of the publicly traded stock or publicly traded fund, a weight for the at least one name, and baseforms of the at least one name; and

a grammar generator for automatically updating a grammar file for names in the database, the grammar file including the names and weights for the names.

23. The apparatus according to claim 22, further comprising a web extractor for automatically identifying, from web sites, stocks and funds that are no longer listed on a market, and wherein said database update device automatically removes from the database any of the plurality of entries corresponding to the identified stocks and funds.

24. The apparatus according to claim 22, further comprising a web extractor for automatically identifying, from web sites, newly listed stocks and newly listed funds, if any, and wherein said database update device automatically creates an entry in the database for each of the newly listed stocks and the newly listed funds.

25. The apparatus according to claim 24, wherein said database update device determines the weights for the names of the newly listed stocks and the newly listed funds, and said apparatus further comprises a baseform generator for generating the baseforms of the names of the newly listed stocks and the newly listed funds.

26. The apparatus according to claim 22, wherein said database update device identifies the transaction volumes of any stocks and funds for which an entry exists in the database, quantizes the transaction volumes into a plurality of bands, and assigns a corresponding weight to each of the plurality of bands.

27. The apparatus according to claim 26, wherein a given corresponding weight assigned to a given band corresponds to each of the names of any of the stocks and funds in the given band.

28. The apparatus according to claim 22, further comprising:
a short word combiner for automatically combining short words in the database to form combined words, a short word being a stock name or a fund name that has less than a predefined number of phonemes; and
a baseform generator for automatically generating the baseforms for the combined words; and
wherein said grammar generator updates the grammar file to include the combined words.

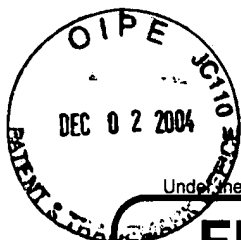
29. The apparatus according to claim 22, wherein said database update device automatically adapts the weights for the names in the database, based upon a transaction volume over a predetermined period of time.

30. The apparatus according to claim 22, wherein said database update device updates the database on a pre-specified basis.

31. The apparatus according to claim 30, wherein the pre-specified basis is daily.

32. The apparatus according to claim 22, wherein each of the plurality of entries further comprises one of corresponding resolved stock names or corresponding resolved fund names, if any.

33. The method according to claim 22, wherein each of the plurality of entries further comprises corresponding stock nicknames or corresponding fund nicknames, if any.



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FEE TRANSMITTAL for FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 340.00

Complete if Known

Application Number	09/925,596
Filing Date	August 9, 2001
First Named Inventor	Zhong-Hua Wong
Examiner Name	Ehichioya, Fred I.
Art Unit	2172
Attorney Docket No.	YOR9-2001-0451US1 (8728-528)

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number
50-0510

Deposit Account Name
IBM - YORKTOWN HEIGHTS

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☐ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 790	2001 395	Utility filing fee	
1002 350	2002 175	Design filing fee	
1003 550	2003 275	Plant filing fee	
1004 790	2004 395	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 88	2201 44	Independent claims in excess of 3
1203 300	2203 150	Multiple dependent claim, if not paid
1204 88	2204 44	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 430	2252 215	Extension for reply within second month	
1253 980	2253 490	Extension for reply within third month	
1254 1,530	2254 765	Extension for reply within fourth month	
1255 2,080	2255 1,040	Extension for reply within fifth month	
1401 340	2401 170	Notice of Appeal	
1402 340	2402 170	Filing a brief in support of an appeal	340.00
1403 300	2403 150	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,370	2453 685	Petition to revive - unintentional	
1501 1,370	2501 685	Utility issue fee (or reissue)	
1502 490	2502 245	Design issue fee	
1503 660	2503 330	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 790	2809 395	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 790	2810 395	For each additional invention to be examined (37 CFR 1.129(b))	
1801 790	2801 395	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

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SUBTOTAL (3) (\$) 340.00

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	Koon Hon Wong	Registration No. (Attorney/Agent)	48,459	Telephone	516-692-8888
Signature		Date	November 28, 2004		

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